

CLAIMS

1. A motor-driven power steering apparatus in which a rotating torque of an electric motor is transmitted to a steering shaft by a drive gear provided in an output shaft of said electric motor and a driven gear provided in said steering shaft, and a speed reduction ratio is equal to or more than 3, wherein

said steering shaft and the output shaft of said electric motor are arranged in almost parallel, a center distance between both the shafts is equal to or more than 35 mm and equal to or less than 90 mm, and

said drive gear is configured such that a number of teeth is equal to or more than 6 and equal to or less than 15, a module is equal to or more than 0.8 and equal to or less than 1.5, a tooth depth is equal to or less than 2.4 times of the module, and a pressure angle is equal to or more than 14.5 degrees and equal to or less than 30 degrees, and a torsion angle is equal to or more than 0 degree and equal to or less than 40 degrees.

2. A motor-driven power steering apparatus as claimed in claim 1, wherein an involute gear in which a tooth profile is formed in such a manner that a pressure angle is increased from a tooth top of the gear to a tooth root is employed for one or both of said drive gear and said driven gear.

3. A motor-driven power steering apparatus as claimed in

claim 1 or 2, wherein an involute gear in which a crowning process is applied in a direction of a tooth trace is employed for one or both of said drive gear and said driven gear.